



NEW ENGLAND
FISHERY MANAGEMENT
COUNCIL

DRAFT AMENDMENT 3 TO THE

DRAFT AMENDMENT 3 TO THE NORTHEAST SKATE COMPLEX

WRITTEN COMMENTS DUE BY NOVEMBER 10, 2008!

PUBLIC HEARING DOCUMENT INDEX

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COUNCIL TO ADDRESS OVERFISHED STATUS OF SMOOTH, THORNY, AND WINTER SKATES.

Although biomass of barndoor, clearnose, and rosette skates has increased and discards have declined since inception of the Skate FMP in 2002, skate landings have increased while smooth, thorny, and winter skate are presently overfished. In addition, overfishing is occurring on thorny skate.

The purpose of the Amendment is to propose and consider modifications of existing management measures or new skate fishery management measures to address the following issues:

- ✦ **Overfished status of smooth, thorny, and winter skates**
- ✦ **Overfishing of thorny skate**
- ✦ **Implementation of annual catch limits (ACLs) and accountability measures (AMs), a new mandate of the reauthorized Magnuson-Stevens Act, and**
- ✦ **A baseline review process that has become obsolete and less meaningful.**

The Amendment proposes catch limits and total allowable landings (TAL) that are set at the median catch/biomass value for the available time series. The Amendment estimates that biomass increases for smooth, thorny, and winter skates are more frequent and greater in value when the catch is below the catch/biomass median value. After accounting for recent discard estimates, landings would need to decline by 40-46% in the wing fishery and by 19-35% in the bait fishery, also reducing skate discards to the extent that fishing activity by skates are reduced from the skate possession limits and time/area closures.

For skates, overfishing and being overfished is determined based on the level and rate of change of a 3-year moving average for bottom trawl survey weight per tow

ANNUAL CATCH LIMITS AND ACCOUNTABILITY MEASURES

Two types of catch limits and accountability measures are proposed in Amendment 3, in response to new Magnuson-Stevens Act mandates and proposed National Standard 1 guidelines.

A "Hard TAC" approach is described in Section 5.1.1.2 and associated with Alternatives 1A, 3A, and 4. Landings and estimated discards would be monitored and as the skate catches approach the ACL, skate possession would be prohibited. Overages would be

deducted from the following year's ACL.

A "Target TAC" approach is described in Section 5.1.1.3 and is associated with Alternatives 1B, 2, and 3B. Landings would be monitored and skate possession limits would decline to the 500 lbs. incidental skate limit as landings approached the wing and bait skate fishery TALs. The 25% difference between the target-based TALs and the ACL would act as the in-season accountability measure, or AM.

OCT / NOV 2008

SUN	MON	TUE	WED	THU	FRI	SAT
26	27	28	29	30	31	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29

AMENDMENT 3 SCHEDULE

- Hyannis, MA public hearing— October 27 @ 7 pm
Radisson Hotel—287 Iyannough Road
- New Bedford, MA public hearing— October 28 @ 7 pm
Whaling Museum—18 Johnny Cake Hill
- Narragansett, RI public hearing— October 29 @ 7 pm
Narragansett Town Hall—25 Fifth Ave.
- Portsmouth, NH public hearing— October 30 @ 7 pm
Urban Forestry Center—45 Elwin Road
- **Deadline for written comments—November 10**
- **Skate Advisory Panel and Oversight Committee—November 14 @ 9 am**
Holiday Inn, 31 Hampshire St., Mansfield, MA
Review comments and recommend final alternative
- **Council meeting—November 18-20**
Sheraton Ferncroft, 50 Ferncroft Road, Danvers, MA

SUBMITTING WRITTEN COMMENTS

Written comments by mail:

Patricia Kurkul, Regional Administrator
 National Marine Fisheries Service
 Northeast Regional Office
 1 Blackburn Drive
 Gloucester, MA 01930
 Subject line: “Comments on Skate Amendment 3”

Written comments by FAX:

National Marine Fisheries Service
 (978) 281-9135
 Subject line: “Comments on Skate Amendment 3”

Written comments by email:

Send to Skateamendment3@noaa.gov
 Subject line: “Comments on Skate Amendment 3”

WHERE TO FIND THINGS IN DRAFT AMENDMENT 3

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SUMMARY OF ALTERNATIVES

In addition to a status quo alternative, Amendment 3 and this DEIS includes six alternatives (labeled 1A, 1B, 2, 3A, 3B, and 4) that were developed to achieve the goals and objectives (described in Section 3.0). All six are intended to achieve the necessary landings reductions to achieve the target and rebuild overfished skates, through various combinations of management measures. No preferred alternative is proposed, because the alternatives achieve similar objectives and one is not clearly superior to the other. Thus, public comment is very important for the purposes of identifying a final preferred alternative.

The proposed alternatives (Section 5.2) include various combinations of measures, which are comprehensively described in Section 5.1 (Management measures). Except for the proposed skate possession limits and the baseline review process, the proposed alternatives are intended to augment rather than substitute for existing skate management measures. All of the alternatives are intended to achieve the same skate catch limits (see table below) through a combination of skate possession limits (Section 5.1.5), time/area management (Section 5.1.4), and seasonal fishery quotas (Section 5.1.6). In addition,

Alternatives 1A, 3A, and 4 include a “Hard TAC” approach to manage annual catch limit (ACL) and implement accountability measures (AMs). The “Hard TAC” approach is described in Section 5.1.1.2. Alternatives 1B and 3B are exactly like Alternatives 1A and 3A, respectively, but would use a “Target TAC” (Section 5.1.1.3) approach to prevent the skate catches from exceeding the ACLs and for invoking AMs. Alternative 2 is similar to Alternative 3B, but uses time/area closures as an AM.

The No Action (status quo) alternative is described in Section 5.2.1. No Action would continue current management policies, which are a combination of multispecies regulations, exempted fisheries, a skate bait letter of authorization, a 10,000 lbs./day/ 20,000 lbs./trip skate wing possession limit, and a baseline review process. It does not include any numeric catch or landings limits, nor any accountability measures.

The alternatives achieve similar conservation objectives and one is not clearly superior to the other. Thus the Council does not have a preferred alternative.

Each alternative also has two fishery allocation options and skate possession limits to achieve the associated TALs (see Section 5.1 on page 5-49).

Allocation Option 1 would allocate relatively more skate landings to the wing fishery based on 2005-2007 economic and regulatory conditions. This option would have less landings reduction for overfished winter skate which is targeted by the skate wing fishery. Option 2 is based on a longer 1995-2006 time series, which includes most of the time since limited

Aggregate skate catch and landing limits, all species combined

	2009-2010	Target (MSY)
Allowable biological catch (ABC)/Annual catch limit (ACL)	27,809 mt 61.31 million lbs.	51,312 mt 113.14 million lbs.
Annual catch target (ACT)	20,857 mt 45.98 million lbs.	38,484 mt 84.84 million lbs.
Total allowable landings (TAL)	11,544 mt 25.45 million lbs.	20,490 mt 45.17 million lbs.
Federal water TAL Option 1	Wings 8,134 mt 17.93 million lbs.	Bait 3,057 mt 6.74 million lbs.
Federal water TAL Option 2	Wings 7,386 mt 16.28 million lbs.	Bait 3,806 mt 8.39 million lbs.

LANDINGS AND REDUCTION TARGETS RELATIVE TO 2007

Fishery	Wing	Whole/bait	Wing	Whole/bait
Historic fishery allocation basis	2005-2007	1995-2006	2005-2007	1995-2006
Target TAL (mt)	8,426	7,677	3,118	3,867
Target change in landed mortality, no closures	-40.2%	-45.5%	-34.7%	-19.0%
Mortality reduction from time/area closures (Two-bin model)	-15.1%	-15.1%	4.6%	4.6%
Target change in landed mortality, after applying closure effects	-25.1%	-30.4%	-39.3%	-23.6%

access and DAS management were introduced in the Multispecies, Monkfish, and Scallop FMPs. This option would allocate more skate landings to the bait fishery than would Option 1, but some reduction in 2007 landings would still be required (see table).

Common to management Alternatives 1A, 1B, 2, 3A, 3B, and 4 would be an incidental skate landings limit of 500 lbs. whole or 220 lbs. wings. Vessels that have less landings on all trips would not be directly affected by the Amendment. Vessels that intend to land more skates on a trip would be required to declare a skate trip, either by the Interactive Voice Response (IVR) system or by the vessel monitoring system (VMS) (see Section 5.1.3 on page 5-45). Option 1 would require vessel operators to inform the dealer, who would then file the landings report with the skate trip declaration information. Option 2 would require vessel operators to file weekly IVR reports with skate landings, which then would be reconciled with dealer landings through an ad hoc adjustment.

Also, Multispecies Category B DAS would not be available for use when a vessel is on a declared skate trip.



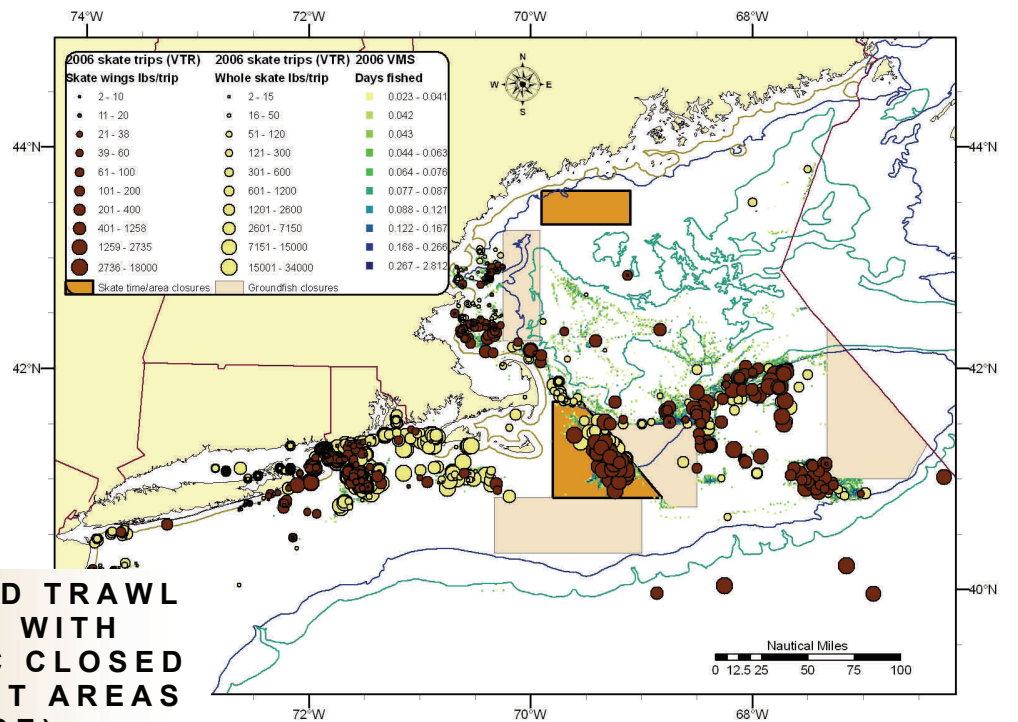
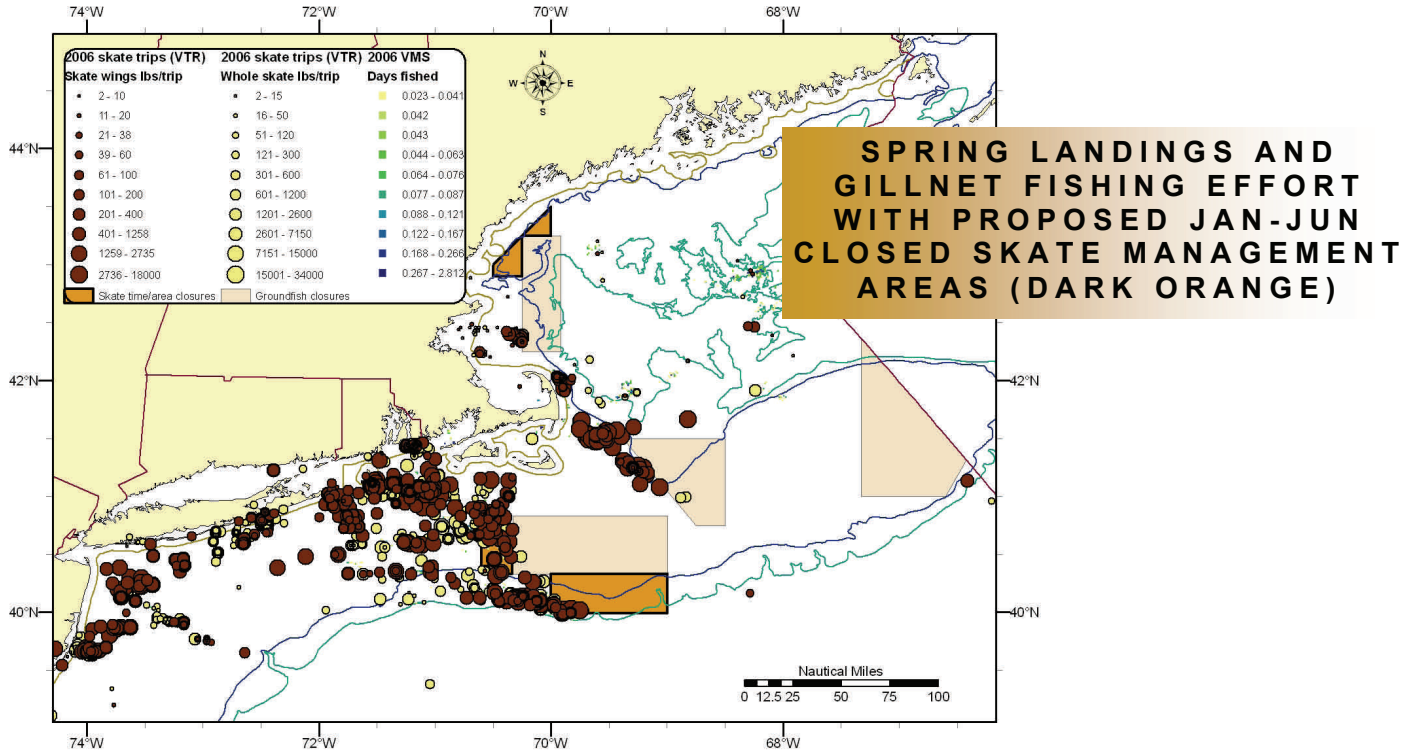
Photo by Tobey Curtis

This is consistent with existing policy for vessels using trawls, but vessels using gillnets have been using B DAS to target skates. This measure would resolve this inconsistency.

An annual review and biennial SAFE Report and specifications process would replace a baseline review process, which the baseline standards had become irrelevant and the process had become obsolete. The SAFE Report and specifications process would be used to modify the ABC and ACL specifications and adjust the skate possession limits to meet the updated targets.



Drawing by Anne Beaudreau



**COMPARISON OF ALTERNATIVES AND RATIONALE
(ALSO SEE SECTION 5 FOR MORE DETAILS)**

Proposed skate possession limits (lbs) for Alternatives 1A and 1B. Both alternatives include skate time/area closures.

TAL allocation option and limit	Skate wing fishery trips		Skate bait fishery trips	
	2005-2007 basis	1995-2006 basis	2005-2007 basis	1995-2006 basis
	8,426 mt	7,677 mt	3,118 mt	3,867 mt
Landings disposition	Wings (whole)	Wings (whole)	Whole	Whole
Skate possession limit	4,800 (10,896)	3,800 (8,626)	6,800	12,100

	Proposed measures	Rationale
Alternative 1A (Section 5.2.2)	<ol style="list-style-type: none"> 1. Annual catch limit (ACL) of 27,809 mt; annual catch target (ACT) of 20,857 mt; total allowable landings (TAL) of 11,544 mt 2. Accountability measures via a “Hard TAC”; landings and discards are monitored and skate possession is prohibited when catch exceeds the ACL 3. Whole/bait skate possession limit 4. Skate wing possession limit 5. Skate time/area closures for vessels on declared skate trips 6. Prohibition on using Multispecies Category B DAS to fish for skates 7. Skate trip declaration requirements 8. Skate incidental possession limit for undeclared trips 9. Annual review and biennial specification setting with SAFE Report 	A combination of skate possession limits, time/area closures, and a zero skate possession limit when catch exceeds the ACL prevents excessive skate mortality and promotes biomass rebuilding.
Alternative 1B (Section 5.2.3)	<p>Measures are the same as Alternative 1A, except:</p> <ol style="list-style-type: none"> 2. Accountability measures via a “Target TAC”; landings are monitored and skate possession would be reduced to the incidental limit (500 lbs. of whole skates) when the landings reach the in-season trigger at 80-100% of the TAL. 	A combination of skate possession limits, time/area closures, and an incidental skate possession limit when landings exceed the TALs prevent excessive skate mortality and promotes biomass rebuilding.

COMPARISON OF ALTERNATIVES AND RATIONALE (CONTINUED)

Proposed skate possession limits (lbs) for Alternative 2, which does not include time/area closures except as an in-season accountability measure

	Skate wing fishery trips		Skate bait fishery trips	
TAL allocation option and limit	2005-2007 basis 8,426 mt	1995-2006 basis 7,677 mt	2005-2007 basis 3,118 mt	1995-2006 basis 3,867 mt
Landings disposition	Wings (whole)	Wings (whole)	Whole	Whole
Skate possession limit	2,500 (5,675)	1,900 (4,313)	8,200	14,200

Alternative	Proposed measures	Rationale
Alternative 2 (Section 5.2.4)	<ol style="list-style-type: none"> 1. Annual catch limit (ACL) of 27,809 mt; annual catch target (ACT) of 20,857 mt; total allowable landings (TAL) of 11,544 mt 2. Accountability measures via a “Target TAC”; landings are monitored and skate possession would be reduced to the incidental limit (500 lbs. of whole skates) when the landings reach the in-season trigger at 80-100% of the TAL. 3. Whole/bait skate possession limit 4. Skate wing possession limit 5. Prohibition on using Multispecies Category B DAS to fish for skates 6. Skate trip declaration requirements 7. Skate incidental possession limit for undeclared trips 8. Annual review and biennial specification setting with SAFE Report 	A combination of skate possession limits, time/area closures (as an accountability measure), and an incidental skate possession limit when landings exceed the TALs prevent excessive skate mortality and promotes biomass rebuilding.

COMPARISON OF ALTERNATIVES AND RATIONALE (CONTINUED)

Proposed skate possession limits (lbs) for Alternatives 3A and 3B. Both alternatives do not include skate time/area closures.

TAL allocation option and limit	Skate wing fishery trips		Skate bait fishery trips	
	2005-2007 basis	1995-2006 basis	2005-2007 basis	1995-2006 basis
	8,426 mt	7,677 mt	3,118 mt	3,867 mt
Landings disposition	Wings (whole)	Wings (whole)	Whole	Whole
Skate possession limit	2,500 (5,675)	1,900 (4,313)	8,200	14,200

Alternative	Proposed measures	Rationale
Alternative 3A (Section 5.2.5)	<ol style="list-style-type: none"> 1. Annual catch limit (ACL) of 27,809 mt; annual catch target (ACT) of 20,857 mt; total allowable landings (TAL) of 11,544 mt 2. Accountability measures via a “Hard TAC”; landings and discards are monitored and skate possession is prohibited when catch exceeds the ACL. 3. Whole/bait skate possession limit 4. Skate wing possession limit 5. Prohibition on using Multispecies Category B DAS to fish for skates 6. Skate trip declaration requirements 7. Skate incidental possession limit for undeclared trips 8. Annual review and biennial specification setting with SAFE Report 	A combination of skate possession limits, and a zero skate possession limit when catch exceeds the ACL prevents excessive skate mortality and promotes biomass rebuilding. Lower skate possession limits than those in Alternatives 1A and 4 are needed to achieve the skate catch limits without the benefit of time/area closures.
Alternative 3B (Section 5.2.6)	Measures are the same as Alternative 3A, except: <ol style="list-style-type: none"> 2. Accountability measures via a “Target TAC”; landings are monitored and skate possession would be reduced to the incidental limit (500 lbs. of whole skates) when the landings reach the in-season trigger at 80-100% of the TAL. 	A combination of skate possession limits, and an incidental skate possession limit when landings exceed the TALs prevent excessive skate mortality and promotes biomass rebuilding. Lower skate possession limits than those in Alternatives 1B and 4 are needed to achieve the skate catch limits without the benefit of time/area closures.

COMPARISON OF ALTERNATIVES AND RATIONALE (CONTINUED)

Proposed skate possession limits (lbs) for Alternatives 1A and 1B. Both alternatives include skate time/area closures.

TAL allocation option and limit	Skate wing fishery trips		Skate bait fishery trips	
	2005-2007 basis	1995-2006 basis	2005-2007 basis	1995-2006 basis
	8,426 mt	7,677 mt	3,118 mt	3,867 mt
Landings disposition	Wings (whole)	Wings (whole)	Whole	Whole
Alternative 4	4,800 (10,896)	3,800 (8,626)	Quota managed, no possession limit	

Alternative	Proposed measures	Rationale
Alternative 4 (Section 5.2.7)	Measures are the same as Alternative 1A, except: 3. The landings for the skate bait fishery are limited by an annual or seasonal quota in lieu of whole skate possession limits.	A combination of skate wing possession limits, a skate bait fishery quota, and a zero skate possession limit when catch exceeds the ACL prevents excessive skate mortality and promotes biomass rebuilding. Unique market characteristics in the skate bait fishery are more easily accommodated by a seasonal quota than by skate possession limits.

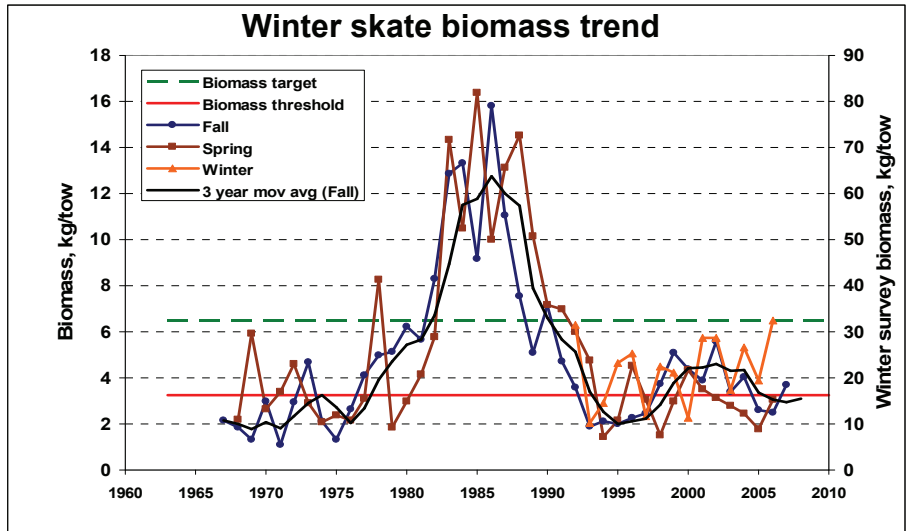
Alternative	Proposed measures	Rationale
No action/ Status quo (Section 5.2.1)	<ol style="list-style-type: none"> 1. Unless fishing in an exempted fishery defined by the Multispecies FMP, vessels fishing for skates must be on a Multispecies, Monkfish, or Scallop DAS. 2. Landings of barndoor, smooth, and thorny skates are prohibited. 3. A 10,000 lbs./day or 20,000 lbs./trip skate possession limit applies to all trips, except for vessels that obtain 4. A bait letter of authorization to allow vessels fishing for skates to exceed the skate possession limit but must land whole skates not exceeding 23 inches (58 cm) in total length. 	These measures were intended to rebuild barndoor and thorny skates, while preventing overfishing particularly on larger skates (e.g. winter skate) that are targeted to supply the wing market.

SUMMARY OF AFFECTED ENVIRONMENT

The affected environment and the Stock Assessment and Fishery Evaluation Report are integrated as Section 7.0, beginning on page 7-64. This section describes the managed skate resource; trends in biomass, abundance, landings, and discards; and the fishery which relies on skates as a targeted or incidental species.

For skates, overfishing and being overfished is determined based on the level and rate of change of a 3-year moving average for survey weight per tow (see Table 14 on page 7-76). The status of little skate relies on the spring survey and all other species rely on the fall survey, but all surveys give similar trends. Through the 2007 fall survey smooth, thorny, and winter skate are below the minimum biomass threshold and are therefore overfished. Thorny skate biomass declined by more than 20% and therefore overfishing is occurring. Barndoor skate biomass has been increasing, but is not yet rebuilt.

Winter skate occurs primarily on Georges Bank and along the coastline of Southern New England and the Mid-Atlantic in the spring. In the fall, winter skate occurs primarily on the northern and



western side of Georges Bank, in the Great South Channel, and along the coastline of Southern New England and Long Island, NY. Smooth and thorny skates occur primarily in the deeper basins of the Gulf of Maine and in the Northeast Channel. More details including growth, fecundity, food habits, and the associated physical environment can be found in Section 7.3 and 7.4 of the Amendment.

The skate fishery is described in Section 7.5 of the Amendment, beginning on page 7-182. There are two fisheries targeting and landing skates, a trawl fishery targeting smaller skates with a Bait Letter of Authorization

Stock status

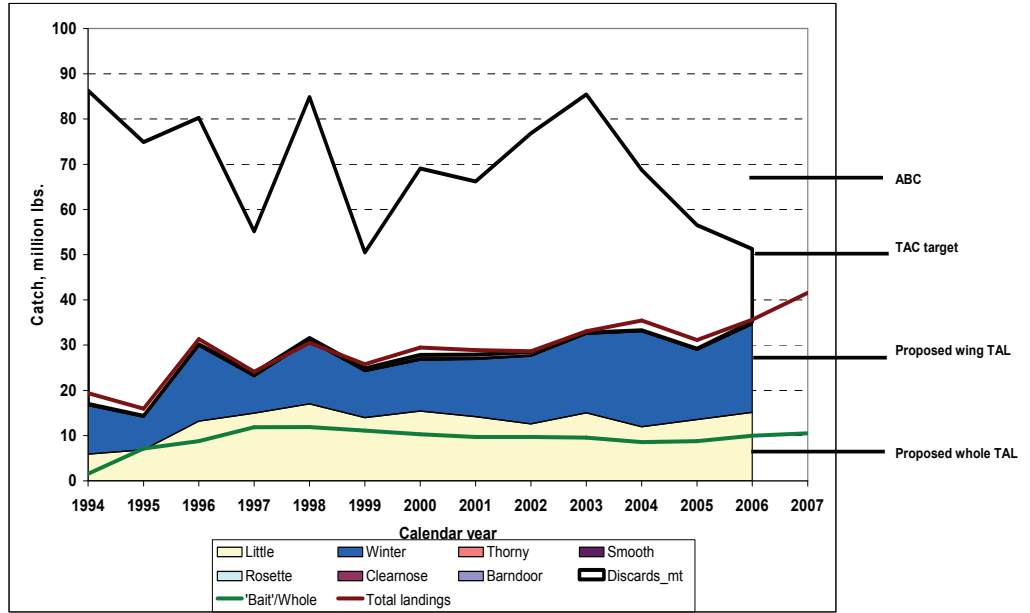
Table 3 on page 4-34

Overfished		Rebuilding	
Smooth 0.14 < 0.16 kg/tow threshold		Barndoor 1.00 < 1.62 kg/tow target	
Thorny 0.42 < 2.20 kg/tow threshold 23.7% biomass decline > 20% threshold			
Winter 2.93 < 3.23kg/tow threshold			
Not overfished and No overfishing Clearnose, Little, Rosette			

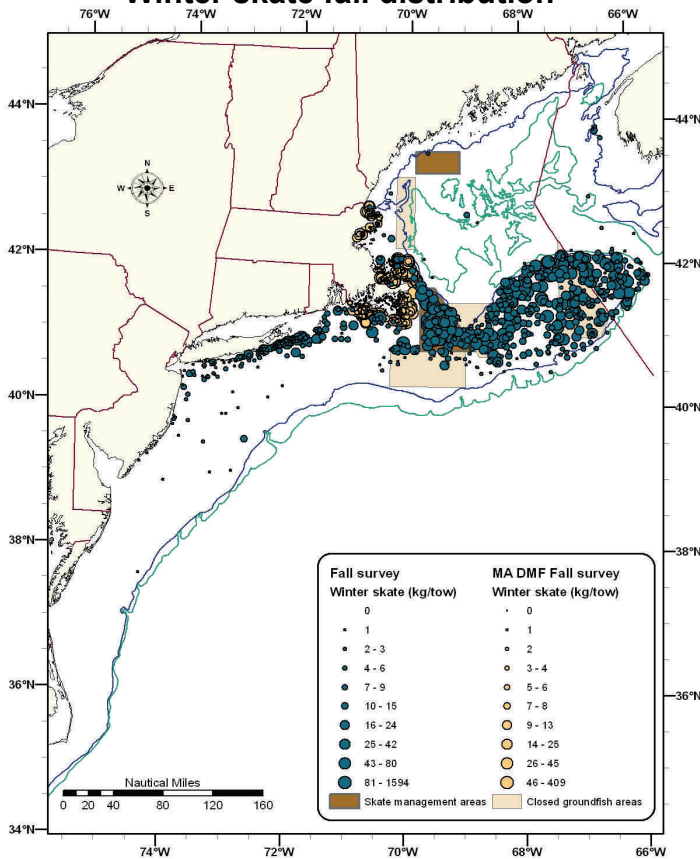
SUMMARY OF AFFECTED ENVIRONMENT (CONTINUED)

in Southern New England, and a gillnet/trawl fishery targeting larger skates for the wing market. The bait fishery catches and lands mainly little skate, but also lands a meaningful amount of winter skate in the spring, which are hard to distinguish from little skate when small and are often misidentified in the landings. On the other hand, the skate wing fishery targets larger skates which can be processed onboard the vessel or on shore. This fishery targets mostly winter skates, with a few other skates mixed in the catch.

Trends in skate landings and estimated discards



Winter skate fall distribution



There is also a mixed skate/monkfish gillnet fishery in Southern New England and NJ. Some vessels using trawls, gillnets, and dredges also land some incidental skates for various markets, while targeting groundfish, monkfish, scallops, and other species.

Total catch has declined since 2002, even though skate bait landings have been stable and skate wing landings have increased. The lower catch has resulted mainly from a decline in estimated discards. Skate landings in 2007, however, continued an upward trend and if discards remain the same as they were in 2006, the total catch would exceed the TAC target (75% of the median time series catch). Landings in both the bait and wing fisheries would exceed the total allowable landings, under either landings allocation option in the Amendment.

The top three skate landings ports were New Bedford, MA; Chatham, MA (mostly skate wings); and Point Judith, RI (mostly whole skate for bait), together accounting for more than 75% of skate

SUMMARY OF AFFECTED ENVIRONMENT (CONTINUED)

landings in 2007.

Landings by vessels using gillnets on a Multi-species DAS have recently increased. Most of the landings occur on an A DAS, but gillnet landings on a B DAS have increased from negligible amounts to nearly 2 million lbs. (Figures 12-13 on page 7-198).

Skate prices in the bait fishery have been relatively stable around 5 to 10 cents per pound. Recent skate wing prices have been rising to record 24 cents per pound (live weight; 55 cents per pound of wings) in 2007 (Figure 20 on page 7-210 of the amendment document).

The status of little skate relies on the spring survey and all other species rely on the fall survey, but all surveys give similar trends



Photo by Andrew Applegate

SUMMARY OF ESTIMATED IMPACTS

Rebuilding probabilities were estimated by evaluating historic changes in biomass vs. various reported catch levels. In all three cases of overfished skates, the annual rebuilding rate to achieve the biomass target was less than the estimated intrinsic rate of population growth.

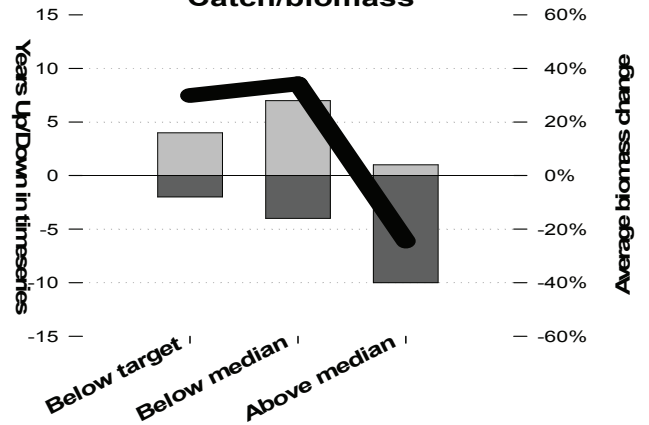
When the skate catch/biomass ratio was less than the median, winter skate biomass increased 7 out of 11 times, averaging 34% per year. Thorny skate biomass has declined through most of the time series, but less frequently (7 out of 11 times) when the catch was below the median, for an average increase of 10% per year (12 percent when catch was below 75% of the median). Smooth skate biomass also increased more frequently (8 of 11 times) and by an average 36% per year when catches were below the median. This analysis suggests that achieving the targets in the mandated rebuilding time (10 years for winter and smooth; 22 years for thorny) is probable.

The direct impacts on the skate fishery, skate discards, skate landings, landings of other species, and revenue

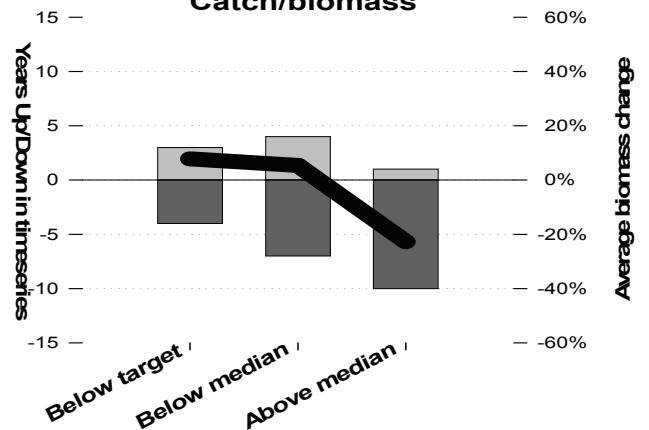
Illustration of a good relationship between catch and changes in biomass

This analysis suggests that achieving the targets in the mandated rebuilding time is probable.

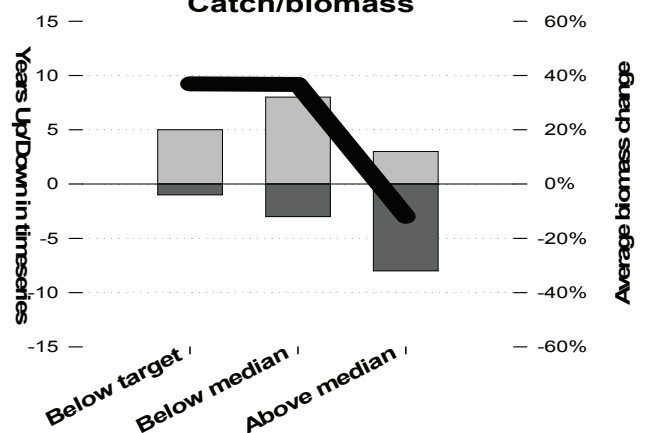
Winter skate Catch/biomass



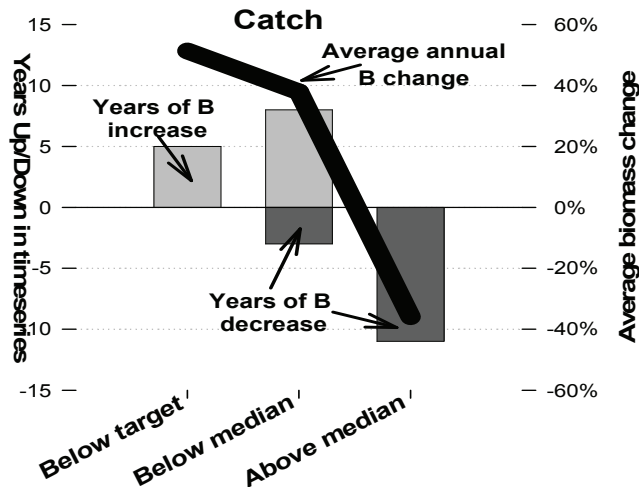
Thorny skate Catch/biomass



Smooth skate Catch/biomass



Good correlation



SUMMARY OF ESTIMATED IMPACTS (CONTINUED)

were estimated by combining an economic possession limit model and a two-bin area effects model. Skate catch reductions (including the net changes in skate discards) are expected to achieve the TAL targets based on reductions from 2007 fishing activity, when Multispecies Framework 42 was in full effect. The details of these estimated effects are given in Tables 68-79, beginning on page 8-295 of the Amendment.

With Allocation Option 1, total and net revenue to the fishery are expected to decline by 10 and 9% in the bait fishery and by 16-22% and 13-18% in the skate wing fishery, respectively, before accounting for changes in producer surplus in the lobster fishery (see Section 8.7.2.3 on page 8-332), arising from estimated changes in skate bait prices. For allocation option 2, total and net revenue is estimated to decline by 3-4% in the skate bait fishery and by 20-27% (total) and 15-21% (net) in the wing fishery. The effects for Alternative 4 are underestimated because there is no information about how a skate bait fishery would respond to quotas and seasonal closures, but the effects for the wing fishery are exactly the same as Alternative 1.

These estimates are however averages. Vessels that land above average amounts of skates per trip or fish frequently in the proposed skate management areas will be hit the hardest by the alternatives. If these vessels don't compensate in some other way, the effect on revenue may be 50% or higher for some vessels. Chatham, MA would be affected most by the proposed skate management areas, although vessels from there will probably fish further north in the Great South Channel, or further offshore on northwestern Georges Bank.

Alternatives 1A and 1B

In addition to the measures that apply to all alternatives, Alternatives 1A and 1B include time area closures and skate possession limits to reduce landings and skate mortality. Since the skate management areas include areas with high CPUE of winter skate, some mortality reduction (-15.1%) for the skate wing fishery is expected and the wing fishery possession limit can be higher than the other alternatives. It is therefore unclear whether these alternatives would reduce mortality on overfished skates more than other alternatives that do not include time/area closures.

Not including shifts of effort to other species or fishing areas, the analysis indicates that Alternatives 1A and 1B would reduce effort by 9.5% in the whole/bait fishery and 16% in the wing fishery (Table 68) with Allocation Option 1 and by 2.6 and 18.6% respectively with Allocation Option 2 (Table 74). These predicted effort reductions are somewhat less than those for Alternatives 2, 3A, and 3B because more skate mortality reduction is achieved via the time/area closures, which shift effort to lower CPUE areas rather than shorten trips that target skates via a lower possession limit.

Total revenue from trips landing skates is estimated to decline by 10% in the whole/bait fishery and 17% in the skate wing fishery for Allocation Option 1 and by 3% and 17% respectively for

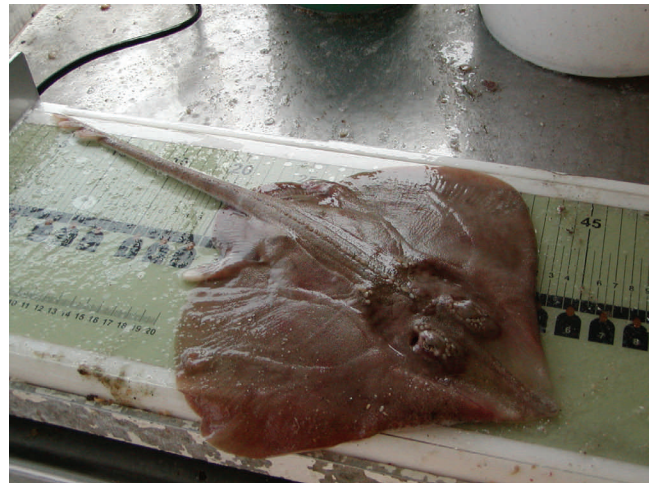


Photo by Andrew Applegate

SUMMARY OF ESTIMATED IMPACTS (CONTINUED)

Allocation Option 2. The estimated revenue losses in the whole/bait fishery are estimated to be about the same as that for Alternatives 2, 3A, and 3B, but the revenue losses for the wing fishery in Alternatives 1A and 1B are somewhat less than the other alternatives that do not include time/area closures. This is expected because trips that target larger skates for the wing market would shift effort to adjacent areas that remain open, making up the potential revenue loss through the catch of other species (primarily flounders) whose landings are estimated to decline less for Alternatives 1A and 1B than with the other alternatives.

With Allocation Option 1, the landings (on trips landing skates) of flounders, monkfish, and other groundfish species are estimated to decline by 3-9% in the whole/bait fishery and by 5-18% in the skate wing fishery (Table 68). With less of the TAL going to the wing fishery in Allocation Option 2, the reduction in landings of other species ranges from 6-20%.

Excluding the effects of the Category B DAS prohibition (Section 5.1.3) which applies only to vessels using gillnets and fishing on a Multispecies DAS, most of the effects of time/area closures and skate possession limits in Alternatives 1A and 1B would be experienced by vessels using trawls to fish for skates (Table 69 and Table 75). This result occurs because possession limits tend to affect longer trips landing higher amounts of skates on a trip. Vessels using trawls and landing skates (Table 70) tend to be larger vessels and take longer trips (1.45 days) for trawl vessels vs. 0.57 days for a gillnet vessel in the wing fishery), presumably having higher skate landings. Moreover, the trips

and vessels affected by either possession limits and the time/area closures tend to be larger vessels taking longer trips (1.63 days in the whole/bait fishery and 3.25 days in the wing fishery) for both gear types.

Vessels using gillnets to land skates (Table 72 and Table 78) would experience fewer effects than vessels using trawls, presumably because they take shorter trips, have lower skate landings per trip, and do not fish as frequently in the skate management areas (Figure 33) as do vessels using trawls (Figure 32).

Vessels landing skates in New Bedford and Chatham, MA would be more affected by Alternatives 1A and 1B (Table 80 and Table 81) than vessels landing skates in other ports, such as Point Judith, RI because of their close proximity to the proposed skate management areas.

Even though the areas that had higher CPUE were included in the proposed skate management areas, there are a substantial number of trips, landing skates in either MA or RI, that fished in the remaining open areas and landed more than the proposed possession limits (Figure 43 and Figure 44).

Alternatives 2, 3A and 3B

Time/area closures for vessels landing more than 500 lbs. of skates are not included in Alternatives 2, 3A, and 3B, except as an accountability measure in Alternative 2. As a result, the estimated effort reduction is marginally greater than Alternatives 1A and 1B (Table 68 and Table 74), due to the effect that lower skate possession limits would have on trip length. Associated with a change in trip length, the effects on revenue derived from the landings of species other than skates is also greater, as are losses in total and net revenue.

SUMMARY OF ESTIMATED IMPACTS (CONTINUED)

Particularly for these alternatives, the reduction in skate landings and revenue is greater than the target reduction in landings, which is a natural outcome of accounting for the added discards caused by a lower possession limit. Skate fishing effort in this case would not shift out of the skate management areas to adjacent areas where skates are relatively abundant, but may shift to skate fishing areas closer to port or become more concentrated in areas where skates can be caught more quickly (i.e. in areas with higher CPUE), to compensate for a shorter trip length.

Like Alternatives 1A and 1B, the relative effect of the lower skate possession limits are estimated to have greater effects on vessels using trawls than on vessels using gillnets (Table 69 and Table 75). It does not appear that the skate possession limits for Alternatives 2, 3A, and 3B are so low that they would have much effect on vessel using gillnets on day trips.

Because the skate possession limits are lower for these alternatives than Alternatives 1A, 1B, or 4, they would affect more trips in all areas (Figure 43 and Figure 44). It also appears that more mixed species trips (targeting skates, yellowtail flounder, and monkfish) would be affected, particularly trips fishing on the northern edge of Georges Bank (Figure 43). A few more trips fishing off NY and NJ would be affected by this set of alternatives than for Alternatives 1A, 1B, and 4 (Figure 45), but only a small proportion of trips in this area would be affected by the skate possession limits in any of the alternatives.

Alternative 4

The estimated effects on effort, skate landings, landings of species other than skates, and revenue on trips that landed skates are exactly the same as Alternatives 1A and 1B for the skate wing fishery. The estimated effects on the whole/bait fishery include only the impacts of the time/area closures, because trips affected by a quota closure cannot be identified and have not been estimated. The impacts of the bait fishery quota would depend on the timing of a fishery closure and the responses by the fishery to an imminent closure. As long as the landings are accurately monitored and there are no loopholes to allow vessels to target small skates under skate wing fishery rules, then the effects on skate landings and skate revenue should be equivalent to the other alternatives.

The cumulative effects of the alternatives are described in detail within Section 8.1, beginning on page 8-236. This analysis includes the effects of the current and proposed skate regulations on the skate and other fisheries as well as the effects of other fishery regulations on the skate fishery. The analysis focuses on the effects on skates, non-target species (such as groundfish, monkfish, and scallops), habitat (Section 8.1.4), protected species (Section 8.1.5) and communities. Table 53 beginning on page 8-249 summarizes the qualitative effects of the various proposed measures and alternatives in Amendment 3. In addition, the effects on the Stellwagen Bank National Marine Sanctuary are provided in Section 8.2.

While the proposed alternatives are anticipated to reduce skate catches, the expected cumulative effects are not expected to be substantial. Fishermen than land skates might fish in slightly

Fishing effort may shift to skate fishing areas closer to port or become more concentrated in areas where skates can be caught more quickly

SUMMARY OF EFFECTS ON FISHERMEN

The following discussion outlines how the proposed alternatives might affect various types of fishermen. It is meant to augment other parts of the document and help some fishermen understand the proposed management better. The following examples are however not comprehensive and each fisherman will experience different types of effects, depending on where they fish, what gear is used, how many DAS are allocated to their vessel, what alternative target species are available, their fishing costs, and how much they rely on skates to generate revenue and profits.

Vessels that land less than 500 lbs. of whole skates or less than 220 lbs. of skate wings on all trips are unlikely to be affected by the proposed alternatives, except for Alternatives 1A and 3A that use a “Hard TAC” accountability measure (AM) which would prohibit skate retention when catch topped the annual catch limit. Except when used as an AM in Alternative 2, these vessels would be able to fish for other species in the skate management areas.

The fishing modes that are discussed below were chosen based on information in the fisheries data and staff’s understanding of the fishery.

JASON THE SKATE BAIT FISHERMAN

Jason derives a significant portion of his income from fishing for skates under a Bait Letter of Authorization. Currently, he fishes on a multispecies DAS from Rhode Island, either in state or federal waters. During the spring, he sometimes fishes in the proposed Skate Management Area 1, which Amendment 3 would close from Jan. to June. No skate possession limit currently applies to Jason, since he has a Bait Letter of Authorization.

Under the proposed measures, Jason would declare that he was fishing in the skate bait fishery, either via an IVR or through his VMS unit. He would still obtain a Bait Letter of Authorization and would not be able to retain skates larger than 23” total length.

The proposed skate possession limits are more restrictive with Allocation Option 1, so he favors Allocation Option 2 which allocates fewer skates to the wing fishery. This would allow for a 12,100 lb. skate possession limit for Alternatives 1A and 1B. Alternatives 2, 3A, and 3B that do not include the skate closures allow for a higher 14,200 lb. skate limit.

The bait possession limit is less for Alternatives 1A and 1B, because the models indicate that some displaced vessels may begin fishing in areas where there are smaller skates and landing them to supply the bait market. Jason realizes that this result is unlikely because vessels that fish for wings in the closed areas probably won’t target smaller skates for a different market.

In any of the above alternatives, Jason would probably make more frequent trips and/or fish closer to

shore. More frequent trips would increase fishing costs, but the price for bait skates might increase to partially offset these additional costs.

Alternative 4 is distinctly different than the others because there would be no skate possession limit, similar to current regulations. The fishery landings would be monitored and count toward an annual or seasonal quota, however, which would probably cause unexpected closures and interruptions in his fishing business. He might try to make more trips while the skate bait fishery is open to compensate. Processors may however pay lower prices while the season is open, but freeze or salt the bait to supply the lobster fishery while the season is closed. Jason favors the seasonal quota over an annual quota, because it might reduce the continuous duration of the closures and keep the price stable.



Photo by Andrew Applegate

SUMMARY OF EFFECTS ON FISHERMEN (CONTINUED)**DAVID THE GILLNET FISHERMAN**

David targets skates with gillnets on a Multispecies DAS and lands skate wings. He previously used Category A DAS to do this, but began using Category B DAS in 2007 when the Framework 42 rules were passed. Currently, there is a 20,000 lb. skate possession limit (10,000 lbs. for trips less than 24 hours long). David often fishes out of Chatham in the South Channel.

Allocation Option 1 would give the wing fishery more allowable landings (TAL), but the skate possession limits are much lower than now under either option. The limits are higher for alternatives using closed skate management areas, 4,800 lbs of wings for Alternatives 1A, 1B and 4. Alternative 4 is exactly the same as Alternative 1B, as far as David is concerned.

Because the proposed skate closures account for a 15% catch reduction in the wing fishery, the proposed skate posses-

sion limits are lower (2,500 lbs. of wings) in Alternatives 2, 3A, and 3B which do not use skate closures to reduce catch.

Since Category B DAS would not be available under any alternative, David would return to using Category A DAS to fish for skates. David already fished day trips for skates, so fishing shorter trips is not an option. For alternatives that close Skate Area 3 in the fall, he might fish the northern part of the Channel east of Cape Cod during the fall. Since the skate possession limits are low, targeting other species on an A DAS might be a better option, depending on fishing costs and multispecies regulations (including whatever may come out of Amendment 16).

David derives a significant part of his income from skate landings, so all the alternatives would be a significant cut. He figures that Alternatives 1A, 1B, and 4 might be the best choice because they have higher skate possession limits, even though he would not be able to fish in Skate Area 3 in the fall.

JACOBY THE SCALLOP FISHERMAN

Jacoby uses a dredge boat to fish for scallops out of New Bedford with a full-time limited access scallop permit. He catches a lot of skates and sometimes fishes in the Channel, where Skate Area 3 is proposed to close from Jul-Dec. When the price is right, he lands the whole skates which are usually marketed for lobster bait. Or the crew might retain and land the skates through other dealers to help pay for their fishing expenses.

Jacoby might routinely declare a skate trip if he lands skates, except possibly when Skate Area 3 closes. When this happens, he might simply retain no more than 500 lbs. of whole skates, discarding

the remainder.

Otherwise, the effects of the Amendment 3 alternatives are similar to those for JD the groundfish trawl fisherman, when JD targets groundfish on a Category A DAS.

The possession limits under any of the alternatives are more than sufficient, since mostly Jacoby targets scallops and lands some skates, particularly if the crew has some extra time when not shucking scallops. Because Jacoby's crew doesn't spend time cutting skates, Jacoby doesn't favor Alternative 4 which would prohibit landing more than 500 lbs. of skates when the quota is reached.

KEVIN THE MONKFISH GILLNET FISHERMAN

Kevin fishes out of New Bedford with gillnets and targets monkfish and skates while on a Monkfish DAS off Southern New England, near the Mudhole. He often lands more than 220 lbs. of skate wings. Sometimes in the spring, he fishes just west of the Nantucket Lightship Area.

Since he lands wings, the proposed alternatives affect him in similar ways to how they affect David, but he doesn't rely on skate landings as much and he has more options to fish for monkfish.

Even though Alternatives 1A, 1B, and 4 would close Skate Area 1 during the spring, he favors these alternatives because of their higher skate possession limits: 4,800 lbs. of wings. During the spring, he might fish in the area around Skate Area 1, perhaps catching fewer

skates while targeting monkfish. Or he might not declare a skate wing trip and target monkfish, landing less than 220 lbs. of wings, discarding the extra skate catch. He might even consider getting a Bait Letter of Authorization and landing whole skates for the bait market, while the quota is open (if Alternative 4 is selected).

Alternatives 2, 3A, and 3B would keep Skate Area 1 open, but with a lower skate possession limit: 2,500 lbs. of wings. The lower possession limit could increase discarding on Kevin's trips, something that he doesn't like to do.

Kevin also favors the "Target TAC" annual catch limit process, because it would reduce the possession limit to the incidental 220 lbs. of wings when the limit was reached, rather than prohibit skate possession under the "Hard TAC" option.

"JD" THE GROUND FISH TRAWL FISHERMAN

JD has a Multispecies permit which he uses to target a variety of species on a Category A or B DAS. Sometimes its cod, other times flats, and sometimes skates, or a mix of all three. JD cannot land more than 220 lbs. of skate wings while using a Category B DAS under Framework 42 rules that took effect in November 2006.

Since JD lands wings and targets a variety of species, the effects are similar to Kevin's described above. JD would routinely declare a skate trip to land his skate catch, either as a target or incidental to fishing for groundfish. The exception would be when the skate management areas close and he wants to target groundfish in these areas. Then JD would not declare a skate trip and would be limited to landing less than 220 lbs. of skate wings. While not on a declared skate trip, JD could fish or transit through the skate management areas, but

would have to properly stow the gear while transiting the area if JD had declared a skate trip and had skates onboard.

Similar to Kevin, JD would prefer using the "Target TAC" accountability measure since it would allow for possession of up to 220 lbs. of skate wings when the landings reached the TAL. Under the "Hard TAC" option, JD would have to discard all of the skate catch, something that he abhors doing.

If JD did not target skates, he might prefer Alternatives 2, 3A, or 3B with the lower possession limits (2,500 lbs. of wings), because they would not close the skate management areas.

If skate bait prices rise, JD might also consider getting one of those Skate Bait Letter of Authorizations and landing smaller skates whole, because it might become more profitable than landing wings with a lower wing possession limit.

- 1. Should the skate bait fishery be managed with a seasonal quota rather than a possession limit? Why? How would the skate bait fishery react to seasonal closures?**
- 2. If you are a skate bait fisherman or dealer, do you prefer a single annual quota, or two/three seasonal quotas? What are the benefits and costs of seasonal quotas?**
- 3. Which TAL allocation option (2005-2007 or 1995-2006) do you prefer and why? Are you a bait or wing fisherman or dealer?**
- 4. Do you prefer higher skate possession limits and semi-annual skate closed areas, or lower skate possession limits and no closures? Why? What port do you operate from?**
- 5. How will the proposed alternatives affect you? How will you be likely to respond to the more restrictive skate management measures?**
- 6. Do you prefer to invoke accountability measures when the catch reaches the TAC, requiring NMFS to monitor and estimate skate discards? Or do you prefer that the accountability measures are invoked when the landings reach or approach the TAL, assuming that discards remain constant?**
- 7. Should NMFS invoke the accountability measures (a prohibition on retaining skates, or a 500 lbs. incidental skate limit) as catch or landings approach the limit (for example at 80-90% of the limit), to avoid paybacks in future years? Or should NMFS invoke the accountability measures when the catch or landings are expected to reach the limits?**

